



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: TFE731-3 BYPASS RATIO: 2.6
 UNIQUE ID NUMBER: 1AS002 PRESSURE RATIO (π_{00}): 14.3
 COMBUSTOR:
 ENGINE TYPE: TF RATED THRUST (F_{00}) (kN): 16.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	27.4	147.3	54.0	
AS % OF ORIGINAL LIMIT	139.8	124.8	78.7	
AS % OF CAEP/2 LIMIT (NO _x)			98.4	
AS % OF CAEP/4 LIMIT (NO _x)			94.7	
AS % OF CAEP/6 LIMIT (NO _x)			93.4	
AS % OF CAEP/8 LIMIT (NO _x)			96.0	

DATA STATUS

x PRE-REGULATION
 - CERTIFICATION
 x REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 - DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

- DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.225	0.06	1.13	19.15	
CLIMB OUT	85	2.2	0.186	0.07	1.62	16.02	
APPROACH	30	4.0	0.072	1.41	15.56	6.92	
IDLE	7	26.0	0.026	9.04	47.70	3.72	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			92	393	2254	845	-
NUMBER OF ENGINES				4	4	4	
NUMBER OF TESTS				4	4	4	
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				24.0	137.7	51.4	
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)				19-25	133-147	47-55	

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97-97.3
TEMPERATURE (K)	294-313
ABS HUMIDITY (kg/kg)	0.0039-0.0073

FUEL

SPEC	ASTM D1655-73T
H/C	
AROM (%)	17

MANUFACTURER: Allied Signal
 TEST ORGANIZATION: Allied Signal
 TEST LOCATION: Phoenix
 TEST DATES: 01/02/1976-01/08/1976

REMARKS

1. Not required to meet GASEOUS regulations

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)